

| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|-------------------------------|------------------------|---------------------|--|
|                               | 10/050,277             | SCHWARTZ, DAVID A.  |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | David M. Naff          | 1651                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-- claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included rewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

This communication is responsive to telephone interviews of 12/14/04 & 12/20/04.

The allowed claim(s) is/are 70 and 72.

The drawings filed on \_\_\_\_\_ are accepted by the Examiner.

Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
 Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- Notice of References Cited (PTO-892)
- Notice of Draftsperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
- Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- Notice of Informal Patent Application (PTO-152)
- Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
- Examiner's Amendment/Comment
- Examiner's Statement of Reasons for Allowance
- Other \_\_\_\_\_.

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**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Title, cancel the title and insert the following title ---  
BIOMOLECULE/POLYMER CONJUGATES ---.

Applicant's representative, David B. Waller, authorized the amendments below by telephone on 12/14/04 and 12/20/04.

Abstract (page 53),  
line 4 of the page, insert a period after "surfaces", and cancel  
"comprising" and insert --- The methods comprise ---;  
line 7 of the page, insert a period after "surface", cancel  
"wherein", and change "the" to --- The ---;  
line 9 of the page, insert a period after "groups", and cancel  
"comprising" and insert --- These groups comprise ---;  
line 12 of the page, insert a period after "groups", and cancel  
"comprising" and insert --- The electrophilic groups comprise ---;  
line 14 of the page, insert a period after "ketone", and cancel  
"and" and insert --- The ---.

Specification,  
page 1, in the paragraph contained by the amendment of 8/25/03  
that replaced the paragraph from lines 6 through 15 of page 1,  
line 4 of the paragraph, insert a comma after "2000";

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line 5 of the paragraph, after "09/630,627" insert --- , now U.S. patent No. 6,686,461 B1 ---;

line 8 of the paragraph, insert a comma after "2000";

line 13 of the paragraph, cancel "2000", and insert --- 2001, now U.S. Patent No. 6,800,728 B2, which claims benefit of U.S. provisional application Serial No. 60/191,186, filed March 22, 2000 ---.

page 8, between lines 17 and 19, insert ---

#### Description of the Figures

Figure 1: General scheme outlining the protocol to prepare a BPS system.

Figure 2: Generic hydrazine (aminoxyl/carbonyl bioconjugation couple that is described for the preparation of BPS system.

Figure 3: Structures of the hydrazine, aminoxy and carbonyl moieties that are suitable for use as partners in the hydrazine (aminoxyl/carbonyl bioconjugation couple.

Figure 4: Scheme used to prepare both HyNic-modified poly-l-lysine and conjugation to a 5'-aldehyde-modified oligonucleotide.

Figure 5: Matrix experiment (see Example 1) demonstrating the covalent nature of the immobilization of a 5'-aldehyde oligo//HyNic/poly-l-lysine (polyK) conjugate on an aldehyde modified glass slide following hybridization to its fluorescent complement.

Figure 6: Matrix experiment (see Example 2) demonstrating the covalent nature of the immobilization of a 5'-hydrazino oligo//sCHO/poly-l-lysine (polyK) conjugate on an amino modified glass slide following hybridization to its fluorescent complement.

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Figure 7: Schematic demonstrating the steps in the preparation of  
a polynucleotide/polymer/surface system (see Example 7). ---.

page 31, cancel lines 23-35;

page 32, cancel lines 1-12.

In the claims, cancel claims 69 and 71.

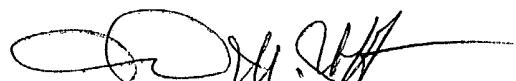
***Conclusion***

Any inquiry concerning this communication or earlier  
communications from the examiner should be directed to David M. Naff  
whose telephone number is 571-272-0920. The examiner can normally be  
reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful,  
the examiner's supervisor, Mike Wityshyn can be reached on 571-272-  
0926. The fax phone number for the organization where this  
application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David M. Naff  
Primary Examiner  
Art Unit 1651

DMN  
12/21/04